A Wet December Has Improved Conditions in the West But Long-Term Drought Continues

- Compared to one year ago, the area in drought in the western U.S. rose from 77% to 88%, while the area in Exceptional Drought (D4) dropped from 22% to 3%.
- December storms brought more than 200% of normal precipitation to a large area of California and Nevada and in the Rockies west of the Continental Divide.
- These storms improved the drought status by 1–2 categories, according to the U.S. Drought Monitor, throughout much of the region.
- However, significant precipitation deficits still exist for almost the entire West over the last two years and continued precipitation is needed over the coming months.

Fig 1. Jan 11, 2022 U.S. Drought Monitor. Source: National Drought Mitigation Center

Fig 2. Percent of normal precipitation in December 2021 for the western U.S. Source: High Plains Regional Climate Center

Fig 3. Percent of normal precipitation in the last two years (as of Jan. 18, 2020) for the western U.S. Source: High Plains Regional Climate Center
STREAMFLOW AND RESERVOIR LEVELS ARE BELOW OR MUCH BELOW NORMAL

As of January 18, 2022, most reservoir levels in the West are below or much below normal, in many cases from long-term drought. Lake Powell is at 27% capacity while Lake Mead is at 34% of capacity. In California, Lake Shasta is at 34% of capacity and Lake Oroville is at 44% of capacity.

Snowpack is key to boosting reservoir levels. The early returns from the 2021-22 snow season are promising. After a slow start to the snow season, a series of winter storms impacted the western U.S. from mid-December through early January. These storms led to a substantial reduction in snow drought compared to mid-December 2021. Combined snow plus reservoir levels are now even near- or above-normal in the Southern Sierra for this time of year. The small areas that remain in snow drought are primarily in the eastern Rocky Mountains. However, below-normal precipitation and snowfall has taken hold across much of the western coastal states and is expected to continue through the end of January. Continued dry conditions into February could lead to a recurrence of snow drought.

CURRENT RESERVOIR LEVELS

<table>
<thead>
<tr>
<th>Reservoir Location</th>
<th>Capacity</th>
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</thead>
<tbody>
<tr>
<td>Lake Mead (AZ/NV)</td>
<td>34%</td>
</tr>
<tr>
<td>Lake Powell (AZ/UT)</td>
<td>27%</td>
</tr>
<tr>
<td>Lake Shasta (CA)</td>
<td>34%</td>
</tr>
<tr>
<td>Lake Oroville (CA)</td>
<td>44%</td>
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</tbody>
</table>

For more information about NIDIS, visit www.drought.gov
2021 ENDS WITH A DEVASTATING WILDFIRE IN COLORADO, RISK CONTINUES ON THE SOUTHERN PLAINS

- Fire year in 2021 was defined by large fires in the Northwest and Northern California not only causing destruction but sending smoke streaming throughout parts of the United States and Canada, and with it, unhealthy air quality.

- The year ended with a devastating, atypical winter fire in Colorado (Figure 6). On December 30, 2021, the Marshall Fire ripped through neighborhoods in Boulder County, CO. Spread by high winds and fueled by drought, the wildfire destroyed more than 1,000 homes. Wet, then dry extremes, set the stage for this disaster in the months leading up to this wildfire.

- Above normal significant fire potential continues in parts of the Central and Southern Plains due to drought and much above normal temperatures (Figures 7 and 8).
OUTLOOK SHOWS DROUGHT CONDITIONS CONTINUING

• NOAA’s National Weather Service Climate Prediction Center sees drought persisting throughout most of the West and Plains through the end of April.

• Drought is expected to develop in some of the few areas in the Southwest and Plains that are currently drought-free.

• Drought is expected to improve, but mostly remain, in the Pacific Northwest and Northern Rockies.

NIDIS AND PARTNERS ARE RESPONDING TO THE WESTERN DROUGHT

Throughout the 2020-22 drought, NIDIS has been working with federal, state, and tribal partners, plus organizations including the Western States Water Council and the American Water Works Association, to ensure that stakeholders have the drought information they need. NIDIS’ efforts include posting the latest drought information on the new drought.gov and social media, regular drought status updates, webinars, and regional coordination meetings. Additionally, NIDIS has a number of ongoing initiatives to address current drought and future droughts and related impacts. For example, the NIDIS Drought and Wildland Fire Nexus (NDAWN) Strategy defines the needs and challenges of fire managers to effectively utilize drought information and to establish a robust drought and wildland fire decision-support information network. All of these efforts involve bringing together the most knowledgeable national and regional drought experts and helping to disseminate their knowledge in easy to understand language. On drought.gov, NIDIS has created interactive maps, tools, and other resources that don’t exist anywhere else, building on data from a vast network of partners to provide easily accessible drought information all in one place. These outreach efforts also share over a decade’s worth of NIDIS-funded research and tools on preparing for, predicting, monitoring, and assessing drought.

NIDIS will continue to provide useful and accurate information for as long as the current drought persists. Furthermore, NIDIS is already thinking ahead to the next drought by developing drought impact assessments, integrating lessons learned, and filling gaps and needs. Our ongoing activities and coordination efforts aim to build resilience and provide value to stakeholders across the region who are trying to manage through these exceptional drought conditions.